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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,578	06/29/2001	Robert J. Royer JR.	42390P11447	6935

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EXAMINER

PORTKA, GARY J

ART UNIT PAPER NUMBER

2188

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,578

Applicant(s)

ROYER ET AL.

Examiner

Gary J. Portka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

S:000

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 14, 2005 has been entered.
2. Claims 13, 22, and 27 have been amended, and claims 18-21 and 31-44 have been canceled. Claims 1-17 and 22-30 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-9, 12-15, and 17 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kurzawa et al., WO 93/21579.

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6. As to claims 1, 7, and 13, Kurzawa discloses a method, non-volatile memory, system, and program comprising partitioning a non-volatile storage media, storing data in a first section and metadata corresponding to the data in a second section (see Abstract, Figs. 1 and 2, page 3 lines 1-8, page 3 line 33 to page 4 line 4, page 6 line 1 to page 9 line 8 in general, and in particular page 8 lines 5-8 and 16-21; since the NVM directory 150 is allocated only as needed it may be considered partitioned along with table 140 with respect to the data buffer area 160). The limitation of accessing the second partition upon/on (interpreting “upon” or “on” to mean “in response to” or “after”, see response to arguments below) a system boot is inherent since the system is for the purpose of retaining data in the event of power failure, and if there is a power failure the system must wait until booting before being able to access the data associated with the descriptors of the directory (see page 1 lines 20-25). The processor is at 110, the hub is the controlling circuitry of 130.

7. Claims 1-5, 7-9, 12-15, 17, and 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurzawa et al., WO 93/21579, in view of Kumar, U.S. Patent 6,728,876 B1.

8. As to claims 22 and 27, Kurzawa discloses the claimed invention substantially as described above with regard to claim 1, but does not disclose accessing the second partition during or in a system boot. Further, as to claims 1, 7, and 13, interpreting “upon” or “on” to mean “during” or “in”, Kurzawa does not disclose accessing the second partition upon/on system boot. The data of this partition is stored in the nonvolatile memory because it is needed in the event of a power failure, since it contains

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descriptors that are needed to access the associated data, and must be used in fault recovery. Kumar describes a system in which a single nonvolatile memory is used to support the system during boot/initialization (Abstract, col. 1 lines 53-67). In Kumar the single nonvolatile memory contains configuration/initialization data needed during booting (see col. 2 line 65 to col. 3 line 4, and col. 3 lines 22-26). The directory of Kurzawa is clearly configuration/initialization data needed for configuring and initializing communications with the associated data (it is used in a fault recovery), and thus as taught by Kumar this data is advantageously accessed during system boot for the purpose of properly initializing the system, which certainly includes the specific situation of after a power failure and as a part of a fault recovery as in Kurzawa. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to access the second partition of Kurzawa during system boot, because it was taught by Kumar that configuration and initialization data was advantageously accessed during the boot.

9. As to claims 2-5, 8-9, 12, 14-15, and 17, 23-26, and 28-29, all limitations are considered disclosed in or inherent to the sections of Kurzawa cited above.

10. Claims 6, 10-11, 16, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurzawa et al., WO 93/21579, in view of Forehand et al., U.S. Patent 6,516,426 B1, or alternatively over Kurzawa, in view of Kumar, and further in view of Forehand.

11. As to claims 6, 10-11, 16 and 30, neither Kurzawa nor Kumar disclose the non-volatile cache as part of a mass storage device. However, it was known in the art to

implement a part of a mass storage device as a non-volatile cache. Forehand teaches that storing data in a non-volatile manner is required to avoid loss of data (see col. 1 lines 43-49), and that the expense and control issues of other non-volatile caching techniques are solved by an on-disk caching technique (see col. 2 lines 4-34). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have the non-volatile cache as part of a mass storage device, because this was previously known as a less expensive and easier controlled method of avoiding the loss of data.

Response to Arguments

12. Applicant's arguments filed March 14, 2005 have been fully considered but they are not persuasive. Applicant argues that Kurzawa does not teach reading memory 130 upon/on/in/during a system boot.

13. First, Examiner does not agree that the word "upon" or "on" may only be interpreted as suggested. Applicant's own examples do not support this argument, since for example in "on cue", and "cash on delivery", the action clearly takes place after a trigger, not during; an action is taken only after cued, not during, and cash is only given after delivery is made (the phrase does not imply that they are traded concurrently). It further appears that since the limitation is separately claimed with all of these words (during, in , on, and upon) that Applicant intends their meanings to cover a broader range than simply meaning "during" (otherwise why would not all claims just use that term?). Examiner did not state "any time after the boot", only that an access

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cause action after a trigger. Second, although Kurzawa does not specifically state that the second partition is accessed during/in a system boot, Kumar teaches that configuration/initialization data is accessed in a system boot, as described hereinabove.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary J. Portka whose telephone number is (571) 272-4211. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gary J Portka
Primary Examiner
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May 25, 2005